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EDUCATIONAL HETEROGAMY: DOES IT EQUAL CULTURAL DIFFERENCES IN CHILD-REARING?

Mieke Eeckhaut[1], Bart Van de Putte[1], Jan Gerris[2] & Ad Vermulst[2]

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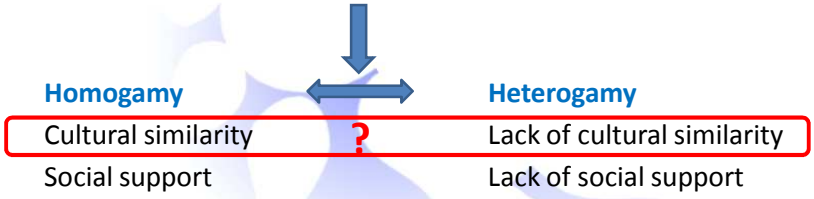
[1] Department of Sociology, Ghent University, Belgium
[2] Behavioral Science Institute, Radboud University Nijmegen, The Netherlands
Correspondence: Mieke Eeckhaut, Korte Meer 5, 9000 Ghent (Belgium) – Mieke.Eeckhaut@UGent.be

HETEROGAMY RESEARCH

Two basic findings:

1. Ubiquity of homogamous relationships
2. Vulnerability of heterogamous relationships



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EMPIRICAL RESEARCH

- Only a **handful of studies** have empirically tested and supported this link (e.g. Curtis & Ellison ,2002; Hohmann-Marriott & Amato, 2008)

  → these studies have important limitations:

  1. Cultural differences in wide and seemingly random domains
  2. Diversity of measures for cultural differences

- The link is questioned by the findings of the **psychology oriented literature**

(How) do heterogamous marriages differ from homogamous marriages in terms of cultural differences?

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THEORY VS. RESEARCH

\+ (Sociological) theory

- Weber (status groups)
- Merton
- Conflict theory
- Bourdieu (habitus)
- Symbolic interactionism

Structuralism

Interactionism

– Empirical considerations

1. Gender differences
2. Gender differences in the link with education

Homogamy = cultural similarity?

3. Selection
4. Convergence

Heterogamy = cultural differences?

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WHICH DIFFERENCES?

- **Educational** heterogamy
  - Educational homogamy ↗
  - Achieved vs. ascribed characteristics
- Cultural differences in **child-rearing**
  - Importance for the functioning of the family
    - Visibility
    - Consequences
  - Link with education (cf. Kohn)

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DATA

- 'Child-rearing and family in the Netherlands, 1990'
- 631 married couples with children:
  - First marriages
  - Both partners born in the Netherlands
- Variables:

	N	Mean/p (s.d.)
Control variables		
Age of the man	631	0.00 (4.84)
Age of the woman	631	-0.01 (4.15)
Number of children	631	0.00 (1.04)
Age of the target child	631	0.00 (2.21)
Gender of the target child	631	
Boy (ref.cat.)	310	0.49
Girl	321	0.51 (0.50)
Urbanization grade birthplace man	631	
Big city (ref.cat.)	189	0.30
Small city	188	0.30 (0.77)
Urbanized rural	183	0.29 (0.77)
Rural	70	0.11 (0.61)
Urbanization grade birthplace woman	631	
Big city (ref.cat.)	191	0.30
Small city	188	0.30 (0.78)
Urbanized rural	184	0.29 (0.77)
Rural	68	0.11 (0.61)
Educational level of the man's father	631	
Low (ref.cat.)	313	0.50
Middle	230	0.36 (0.92)
High	88	0.14 (0.71)
Educational level of the woman's father	631	
Low (ref.cat.)	288	0.46
Middle	263	0.42 (0.93)
High	80	0.13 (0.69)

	N	Mean (s.d.)
Independent variables		
Completed education, man	631	
Less than elementary	*16*	
Elementary	*38*	
Lower technical or vocational	*201*	
(First classes of) (lower) gen. secondary	*83*	
Intermediate vocational	*107*	
Upper general secondary	*45*	
Higher vocational	*78*	
University	*63*	
Completed education, woman	631	
Less than elementary	*10*	
Elementary	*81*	
Lower technical or vocational	*186*	
(First classes of) (lower) gen. secondary	*135*	
Intermediate vocational	*114*	
Upper general secondary	*38*	
Higher vocational	*51*	
University	*16*	
Dependent variables		
Negative Control - man	548	1.73 (1.01)
Negative Control - woman	553	1.59 (0.98)
Support - man	543	3.66 (0.81)
Support - woman	553	3.59 (0.84)
Adaptation - man	618	3.80 (0.77)
Adaptation - woman	629	3.76 (0.76)

DIAGONAL REFERENCE MODELS

$$Y_{ijk} = p * \mu_{ii} + (1-p) * \mu_{jj} + \sum\beta_l * X_{ijl} + \sum\beta_w * H_{ijw} + \varepsilon_{ijk}$$

Covariates | Heterogamy

$0 \le p \le 1$
$i = 1,\ldots,T$;
$j = 1,\ldots,T$;
$k = 1,\ldots,n_{ij}$

The effect of five commonly studied heterogamy variables:

- Three **categorical** (2categories / 3categories / 5categories)

2 categories

Education man \ Education woman	1	2	3	4
1				
2				
3				
4				

3 categories

Education man \ Education woman	1	2	3	4
1				
2				
3				
4				

5 categories

Education man \ Education woman	1	2	3	4
1				
2				
3				
4				

- Two **numerical** (signed / absolute difference in education)

Signed difference in education

Education man \ Education woman	1	2	3	4
1				
2				
3				
4				

Absolute difference in education

Education man \ Education woman	1	2	3	4
1				
2				
3				
4				

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RESULTS – EDUCATION

Comparison of the Baseline model to the Model with the control variables, based on R^2 ($p_{R^2change}$: comparison with previous model).

	Negative control		Support		Adaptation	
	Men	Women	Men	Women	Men	Women
Baseline model	0.045 **	0.040 **	0.040 **	0.035 **	0.137 **	0.099 **
Model with the control variables	0.134 **	0.106 **	0.069	0.086 **	0.174 *	0.161 **

The educational variables explain a substantial part of the variation

The eight control variables are of importance for 5/6 dependent variables

+ p<0.100, * p<0.050, ** p<0.010

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Parameter estimates for the Model with the control variables (SE).

	Negative control		Support		Adaptation	
	Men	Women	Men	Women	Men	Women
Salience parameter						
p	1.000 (.274)	0.540 (.142)	0.693 (.262)	0.000 (.153)	0.784 (.102)	0.458 (.085)
Means (μ_{ij}'s) for the homogamous with educ. level i						
μ_{11}	1.870 (.161)	2.010 (.182)	3.484 (.157)	3.568 (.108)	4.166 (.125)	4.346 (.121)
μ_{22}	1.832 (.088)	1.783 (.091)	3.589 (.076)	3.474 (.073)	4.041 (.063)	3.931 (.063)
μ_{33}	1.470 (.122)	1.671 (.133)	3.772 (.109)	3.790 (.090)	3.637 (.088)	3.655 (.093)
μ_{44}	1.475 (.089)	1.137 (.108)	3.879 (.086)	3.803 (.090)	3.319 (.072)	3.282 (.077)
Control variables						
Age of the man	-0.021 (.013)	0.005 (.013)	0.011 (.011)	0.023 (.011) *	0.016 (.009) +	-0.005 (.009)
Age of the woman	0.002 (.016)	-0.001 (.016)	0.004 (.013)	-0.028 (.013) *	0.009 (.011)	0.041 (.011) **
Number of children	0.055 (.040)	-0.025 (.039)	-0.066 (.033) *	0.009 (.035)	-0.031 (.028)	-0.057 (.028) *
Age of the target child	-0.081 (.021) **	-0.074 (.021) **	0.009 (.018)	0.050 (.018) **	-0.040 (.015) *	-0.052 (.015) **
Gender of the target child (ref.cat. Boy)						
Girl	-0.108 (.042) *	-0.107 (.041) **	0.006 (.035)	0.061 (.035) +	-0.018 (.029)	-0.051 (.029) +
Urbanization grade birthplace man (ref.cat. Big city)						
Small city	-0.027 (.077)	-0.032 (.074)	0.006 (.063)	-0.003 (.063)	0.005 (.053)	0.030 (.052)
Urbanized rural	-0.067 (.076)	0.031 (.075)	-0.002 (.063)	-0.029 (.064)	0.141 (.053) *	0.040 (.052)
Rural	-0.066 (.112)	-0.082 (.111)	0.017 (.094)	-0.101 (.095)	-0.079 (.078)	-0.029 (.078)
Urbanization grade birthplace woman (ref.cat. Big city)						
Small city	0.101 (.075)	0.184 (.074) *	0.031 (.063)	0.066 (.064)	0.041 (.052)	0.051 (.052)
Urbanized rural	0.009 (.076)	-0.044 (.074)	-0.007 (.063)	-0.020 (.063)	-0.072 (.052)	0.023 (.052)
Rural	-0.050 (.113)	-0.042 (.111)	-0.105 (.093)	-0.072 (.095)	0.029 (.078)	0.043 (.078)
Educational level of the man's father (ref.cat. Low)						
Middle	-0.102 (.063)	-0.127 (.062) *	0.016 (.053)	-0.046 (.053)	0.041 (.044)	-0.041 (.044)
High	-0.101 (.087)	0.095 (.088)	0.081 (.075)	0.034 (.076)	-0.070 (.062)	0.034 (.061)
Educational level of the woman's father (ref.cat. Low)						
Middle	0.020 (.063)	-0.007 (.064)	-0.048 (.053)	-0.057 (.054)	-0.054 (.045)	-0.038 (.044)
High	-0.006 (.090)	0.140 (.089)	0.065 (.075)	0.103 (.076) *	0.058 (.065)	0.032 (.063)
N	548	553	543	553	618	629

+ p<0.100, * p<0.050, ** p<0.010

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RESULTS – EDUCATIONAL HETEROGAMY

Model selection for the Heterogamy models, based on R^2 ($p_{R^2change}$: comparison with *Model with the control variables*).

	Negative control		Support		Adaptation	
	Men	Women	Men	Women	Men	Women
Model with the control variables	0.134	0.106	0.069	**0.086**	0.174	**0.161**
+ Heterogamy						
Two categories	**0.140** **	0.119 **	**0.074** **	0.087	0.175	0.161
Three categories	0.140 **	0.119 **	0.078 **	0.088	0.176	0.161
Five categories	0.141	0.134 **	0.078	0.088	0.178	0.163
Steps	0.134	0.106	0.071	0.086	**0.177** **	0.162
Steps absolute value	0.139 **	**0.125** **	0.074 **	0.086	0.175	0.161

Men: *Negative control* & *Support* → presence of heterogamy
Adaptation → presence, size & direction of heterogamy

Women: *Negative control* → presence & size of heterogamy
Adaptation & *Support* →no effect of heterogamy

+ p<0.100, * p<0.050, ** p<0.010

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Parameter estimates for the best fitting (Heterogamy) models (SE).

	Negative control		Support		Adaptation	
	Men	Women	Men	Women	Men	Women
Salience parameter						
p	1.000 (.241)	0.741 (.168)	0.650 (.257)	0.000 (.153)	1.000 (.399)	0.458 (.085)
Means (μ_{ii}'s) for the homogamous with educ. level i						
μ_{11}	1.742 (.171)	1.695 (.198)	3.354 (.180)	3.568 (.108)	4.166 (.128)	4.346 (.121)
μ_{22}	1.783 (.092)	1.718 (.091)	3.554 (.078)	3.474 (.073)	4.048 (.064)	3.931 (.063)
μ_{33}	1.352 (.135)	1.493 (.133)	3.666 (.127)	3.790 (.090)	3.623 (.079)	3.655 (.093)
μ_{44}	1.376 (.101)	1.012 (.112)	3.819 (.092)	3.803 (.090)	3.312 (.069)	3.282 (.077)
Control variables						
Age of the man	-0.022 (.013) +	0.004 (.013)	0.011 (.011)	0.023 (.011) *	0.017 (.009) +	-0.005 (.009)
Age of the woman	0.005 (.016)	0.004 (.016)	0.006 (.013)	-0.028 (.013) *	0.009 (.011)	0.041 (.011) **
Number of children						
Age of the youngest child						
Gender of the child (ref.cat. Boy)						
Girl						
Urbanization grade birthplace man (ref.cat. B						
Small city						
Urbanized rural						
Rural						
Urbanization grade birthplace woman (ref.ca						
Small city						
Urbanized rural						
Rural						
Educational level of the man's father (ref.cat.						
Middle						
High	-0.100 (.087)	0.075 (.087)	0.076 (.075)	0.034 (.076)	-0.067 (.062)	0.034 (.061)
Educational level of the woman's father (ref.cat. Low)						
Middle	0.008 (.063)	-0.019 (.063)	-0.055 (.053)	-0.057 (.054)	-0.057 (.044)	-0.038 (.044)
High	0.014 (.090)	0.155 (.088) +	0.076 (.075)	0.103 (.076) *	0.064 (.065)	0.032 (.063)
Heterogamy variables						
Two categories	0.175 (.088) *		0.133 (.080) +			
Steps					0.084 (.130)	
Steps absolute value		0.207 (.059) **				
N	548	553	543	553	618	629

Do the educational effects lead to (more) cultural differences for heterogamous couples?

Negative control: No, just more in heterogamous couples
Support: Yes, no counteracting heterogamy effect
Adaptation: Yes, no counteracting heterogamy effect

+ p<0.100, * p<0.050, ** p<0.010

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RESULTS – EDUCATIONAL HETEROGAMY

Empirical considerations

1. Gender differences
   → Largest for *Negative control*
2. Gender differences in the effect of education
   → Only minor differences

3. Selection
   → Of importance for all couples
4. Convergence
   → No support

The link is not so straightforward

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CONCLUSION:

Education

Large association with the studied values and behaviors (esp. *Adaptation*!)

Educational heterogamy

- *Support* & *Adaptation*: Educational effects will lead to (some) cultural differences
  Negative control: different link as heterogamous couples report more use overall

- The link with cultural differences appeared less straightforward
  →Homogamous couples: Gender differences
  →Heterogamous couples: Selection

Educational heterogamy appears linked to some cultural differences.
Yet, homogamous couples are not free of cultural differences either, while the degree of cultural differences is affected by other important factors as well.

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THANK YOU FOR YOUR ATTENTION

Correspondence: Mieke Eeckhaut, Korte Meer 5, 9000 Ghent (Belgium) – Mieke.Eeckhaut@UGent.be

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